## IN THE CLAIMS

For the Examiner's convenience, all pending claims are included below.

1. (Original) An image processing apparatus, comprising:

a block decompression unit to decompress, block by block, a compressed code having a plurality of blocks into which image data is divided, the compressed code being encoded block by block; and

a rendering control unit to cause a code to be decompressed and rendered on a display unit, the code corresponding to at least one of the blocks that is renderable in a rendering region of the display unit.

2. (Original) An image processing apparatus, comprising:

a block decompression unit to decompress, block by block, a compressed code having a plurality of blocks into which image data is divided, the compressed code being encoded block by block; and

a rendering control unit to cause a first code to be decompressed and rendered on a display unit, the first code corresponding to at least one of the blocks that is renderable in a rendering region of the display unit, and thereafter, causes a second code to be decompressed, the second code corresponding to at least one of the blocks that is outside the rendering region.

3. (Original) An image processing apparatus, comprising:

a block decompression unit to decompress, block by block, a compressed code

formed of a plurality of blocks into which data of an image is divided, the compressed code being encoded block by block;

a rendering control unit to specify an area to be rendered of the image and cause the specified area to be rendered on a display unit;

a block extraction unit to receive a rendering area signal indicating the area to be rendered on the display unit from the rendering control unit, and extract a block corresponding to the area to be rendered from the blocks of the compressed code;

a rendering area block decompression unit to cause the block decompression unit to decompress part of the compressed code that corresponds to the extracted block;

a decompressed image storage unit to store part of the image that corresponds to the decompressed part of the compressed code;

a rendering enabling signal output unit to output to the rendering control unit a rendering enabling signal indicating completion of decompression of the area to be rendered after the decompression of the part of the compressed code is completed; and

a specified area rendering unit to receive the rendering enabling signal from the rendering enabling signal output unit and cause the part of the image stored in the decompressed image storage unit to be rendered on the display unit.


4.     (Original)  An image processing apparatus that, in decompressing a compressed code, decompresses part of the compressed code that corresponds to a block of data of an image that corresponds to an area of the image that is to be rendered in a rendering region of a display unit, and renders the decompressed part of the compressed code before decompressing the remaining part of the compressed code, the image

processing apparatus comprising:

a rendered image change instruction unit to give an instruction to change the area to be rendered from a first area to a second area of the image; and

a changed image rendering unit to, when the instruction is given by the rendered image change instruction unit, decompress part of the compressed code that corresponds to a block of the data of the image that corresponds to the second area of the image, and render the second area of the image in the rendering region.

5.    (Original)  The image processing apparatus as claimed in claim 4, further comprising a predicted block decompression unit to predict an area of the image to which the area to be rendered is changed from the first area based on the instruction given by the rendered image change instruction unit, and decompress, in advance, part of the compressed code that corresponds to a block of the data of the image that corresponds to the predicted area,

wherein the changed image rendering unit renders the predicted area of the image in the rendering region when the block corresponding to the predicted area is identical to the block corresponding to the second area.

6.    (Original)  The image processing apparatus as claimed in claim 5, further comprising a rendering position change unit to change the area to be rendered,

wherein the predicted block decompression unit predicts the area of the image to which the area to be rendered is changed from the first area based on a characteristic of the rendering position change unit when the rendered image change instruction unit is

based on the rendering position change unit.

7.      (Original)  The image processing apparatus as claimed in claim 6,
wherein, when the rendering position change unit performs pixel-by-pixel scrolling using
a scroll bar, the predicted block decompression unit predicts that a block existing in a first
direction from the first area is a next block to be rendered, the first direction being
perpendicular to a second direction in which the scrolling has been performed to the first
area.

8.      (Cancelled)  The image processing apparatus as claimed in claim 6,
wherein, when the rendering position change unit performs page-by-page scrolling using
a scroll bar, the predicted block decompression unit predicts that a block existing in a
direction of the scrolling from the first area is a next block to be rendered.

9.      (Cancelled)  The image processing apparatus as claimed in claim 6,
wherein, when the rendering position change unit performs page-by-page scrolling using
a scroll bar, the predicted block decompression unit predicts that a block existing between
the first area and an area of the image from which the scrolling has been performed up to
the first area is a next block to be rendered.

10.     (Cancelled)  The image processing apparatus as claimed in claim 6,
wherein the predicted block decompression unit predicts that a block existing around a
center of the image is a next block to be rendered when unit rendering position change

unit changes the area to be rendered using a randomly accessed part.

11.    (Cancelled) The image processing apparatus as claimed in claim 6, wherein the predicted block decompression unit predicts that a block adjacent to a block including the currently rendered first area of the image is a next block to be rendered when the rendering position change unit changes the area to be rendered using a hand tool.

12.    (Cancelled) The image processing apparatus as claimed in claim 6, further comprising a particular position specifying unit specifying a particular position on the image to which the area to be rendered is changed from the first area,

wherein the predicted block decompression unit predicts that a block concerning the specified particular position is a next block to be rendered when the rendered image change instruction unit is based on the particular position specifying unit.

13.    (Cancelled) The image processing apparatus as claimed in claim 12, wherein the particular position specified by the particular position specifying unit is a particular position predetermined by a user.

14.    (Cancelled) The image processing apparatus as claimed in claim 12, wherein the particular position specified by the particular position specifying unit is a particular position corresponding to a result of statistical analysis of a history of usage by a user.

15. (Cancelled) The image processing apparatus as claimed in claim 12, wherein the particular position specified by the particular position specifying unit is a particular position corresponding to a frequency of occurrence of a high-frequency component in the compressed code.

16. (Original) The image processing apparatus as claimed in claim 4, wherein the block employed as a unit of dividing the image is a tile.

17. (Original) The image processing apparatus as claimed in claim 16, wherein the block employed as a unit of dividing the image is identical to a value defined by a profile.

18. (Original) The image processing apparatus as claimed in claim 4, wherein the block employed as a unit of dividing the image is a precinct.

19. (Original) The image processing apparatus as claimed in claim 18, wherein the block employed as a unit of dividing the image is identical to a value defined by a profile.

20. (Original) The image processing apparatus as claimed in claim 4, wherein the block employed as a unit of dividing the image is a code block.

21.     (Original) The image processing apparatus as claimed in claim 20, wherein the block employed as a unit of dividing the image is identical to a value defined by a profile.

22.     (Original) An image display apparatus, comprising:

a display unit to display information;

a receiver unit to receive via a network a compressed code formed of a plurality of blocks into which data of an image is divided, the compressed code being encoded block by block; and

an image processing apparatus, comprising:

a block decompression unit to decompress, block by block, a compressed code having a plurality of blocks into which image data is divided, the compressed code being encoded block by block; and

a rendering control unit to cause a code to be decompressed and rendered on a display unit, the code corresponding to at least one of the blocks that is renderable in a rendering region of the display unit, the image processing apparatus decompressing the received compressed code and causing the received compressed code to be rendered on the display unit.

23.     (Original) An image display apparatus, comprising:

a display unit to display information;

a receiver unit to receive via a network a compressed code formed of a plurality of blocks into which data of an image is divided, the compressed code being encoded

block by block; and

an image processing apparatus, comprising:

a block decompression unit to decompress, block by block, a compressed code having a plurality of blocks into which image data is divided, the compressed code being encoded block by block; and

a rendering control unit to cause a first code to be decompressed and rendered on a display unit, the first code corresponding to at least one of the blocks that is renderable in a rendering region of the display unit, and thereafter, causes a second code to be decompressed, the second code corresponding to at least one of the blocks that is outside the rendering region, the image processing apparatus decompressing the received compressed code and causing the received compressed code to be rendered on the display unit.

24.    (Original) An image display apparatus, comprising:

a display unit to display information;

a receiver unit to receive via a network a compressed code formed of a plurality of blocks into which data of an image is divided, the compressed code being encoded block by block; and

an image processing apparatus, comprising:

a block decompression unit to decompress, block by block, a compressed code formed of a plurality of blocks into which data of an image is divided, the compressed code being encoded block by block;

a rendering control unit to specify an area to be rendered of the image and

cause the specified area to be rendered on a display unit;

a block extraction unit to receive a rendering area signal indicating the area to be rendered on the display unit from the rendering control unit, and extract a block corresponding to the area to be rendered from the blocks of the compressed code;

a rendering area block decompression unit to cause the block decompression unit to decompress part of the compressed code that corresponds to the extracted block;

a decompressed image storage unit to store part of the image that corresponds to the decompressed part of the compressed code;

a rendering enabling signal output unit to output to the rendering control unit a rendering enabling signal indicating completion of decompression of the area to be rendered after the decompression of the part of the compressed code is completed; and

a specified area rendering unit to receive the rendering enabling signal from the rendering enabling signal output unit and cause the part of the image stored in the decompressed image storage unit to be rendered on the display unit, the image processing apparatus decompressing the received compressed code and causing the received compressed code to be rendered on the display unit.

25.    (Original)  An image display apparatus, comprising:

a display unit to display information;

a receiver unit to receive via a network a compressed code formed of a plurality of blocks into which data of an image is divided, the compressed code being encoded block by block; and

an image processing apparatus that, in decompressing a compressed code, decompresses part of the compressed code that corresponds to a block of data of an image that corresponds to an area of the image that is to be rendered in a rendering region of a display unit, and renders the decompressed part of the compressed code before decompressing the remaining part of the compressed code, the image processing apparatus comprising:

a rendered image change instruction unit to give an instruction to change the area to be rendered from a first area to a second area of the image; and

a changed image rendering unit to, when the instruction is given by the rendered image change instruction unit, decompress part of the compressed code that corresponds to a block of the data of the image that corresponds to the second area of the image, and render the second area of the image in the rendering region, the image processing apparatus decompressing the received compressed code and causing the received compressed code to be rendered on the display unit.

26.    (Original)  An image display apparatus, comprising:

a display unit to display information;

an image compression unit to divide data for an image into a plurality of blocks and compresses and encodes each of the blocks into a compressed code; and

an image processing apparatus, comprising:

a block decompression unit to decompress, block by block, a compressed code having a plurality of blocks into which image data is divided, the compressed code being encoded block by block; and

a rendering control unit to cause a code to be decompressed and rendered on a display unit, the code corresponding to at least one of the blocks that is renderable in a rendering region of the display unit, the image processing apparatus decompressing the compressed code generated by the image compression unit and causing the compressed code to be rendered on the display unit.

27.     (Original) An image display apparatus, comprising:

a display unit to display information;

an image compression unit to divide data for an image into a plurality of blocks and compresses and encodes each of the blocks into a compressed code; and

an image processing apparatus, comprising:

a block decompression unit to decompress, block by block, a compressed code having a plurality of blocks into which image data is divided, the compressed code being encoded block by block; and

a rendering control unit to cause a first code to be decompressed and rendered on a display unit, the first code corresponding to at least one of the blocks that is renderable in a rendering region of the display unit, and thereafter, causes a second code to be decompressed, the second code corresponding to at least one of the blocks that is outside the rendering region, the image processing apparatus decompressing the compressed code generated by the image compression unit and causing the compressed code to be rendered on the display unit.

28.     (Original) An image display apparatus, comprising:

a display unit to display information;

an image compression unit to divide data for an image into a plurality of blocks and compresses and encodes each of the blocks into a compressed code; and

an image processing apparatus, comprising:

a block decompression unit to decompress, block by block, a compressed code formed of a plurality of blocks into which data of an image is divided, the compressed code being encoded block by block;

a rendering control unit to specify an area to be rendered of the image and cause the specified area to be rendered on a display unit;

a block extraction unit to receive a rendering area signal indicating the area to be rendered on the display unit from the rendering control unit, and extract a block corresponding to the area to be rendered from the blocks of the compressed code;

a rendering area block decompression unit to cause the block decompression unit to decompress part of the compressed code that corresponds to the extracted block;

a decompressed image storage unit to store part of the image that corresponds to the decompressed part of the compressed code;

a rendering enabling signal output unit to output to the rendering control unit a rendering enabling signal indicating completion of decompression of the area to be rendered after the decompression of the part of the compressed code is completed; and

a specified area rendering unit to receive the rendering enabling signal from the rendering enabling signal output unit and cause the part of the image stored in the decompressed image storage unit to be rendered on the display unit, the image

processing apparatus decompressing the compressed code generated by the image

compression unit and causing the compressed code to be rendered on the display unit.


        29.     (Original) An image display apparatus, comprising:

a display unit to display information;

an image compression unit to divide data for an image into a plurality of blocks

and compresses and encodes each of the blocks into a compressed code; and

an image processing apparatus that, in decompressing a compressed code,

decompresses part of the compressed code that corresponds to a block of data of an

image that corresponds to an area of the image that is to be rendered in a rendering region

of a display unit, and renders the decompressed part of the compressed code before

decompressing the remaining part of the compressed code, the image processing

apparatus comprising:

        a rendered image change instruction unit to give an instruction to change

the area to be rendered from a first area to a second area of the image; and

        a changed image rendering unit to, when the instruction is given by the

rendered image change instruction unit, decompress part of the compressed code that

corresponds to a block of the data of the image that corresponds to the second area of the

image, and render the second area of the image in the rendering region, the image

processing apparatus decompressing the compressed code generated by the image

compression unit and causing the compressed code to be rendered on the display unit.


        30.     (Original) An image processing method for decompressing, block by

block, a compressed code formed of a plurality of blocks into which image data is divided, the compressed code being encoded block by block, the image processing method comprising:

decompressing a code and rendering the code on a display unit, the code corresponding to at least one of the blocks that is renderable in a rendering region of the display unit.

31. (Original) An image processing method for decompressing, block by block, a compressed code formed of a plurality of blocks into which image data is divided, the compressed code being encoded block by block, the image processing method comprising:

(a) decompressing a first code and rendering the first code on a display unit, the first code corresponding to at least one of the blocks that is renderable in a rendering region of the display unit; and

(b) decompressing a second code corresponding to at least one of the blocks which one is outside the rendering region after decompressing the first code and rendering the first code on a display unit.

32. (Original) An image processing method that, in decompressing a compressed code, decompresses a part of the compressed code that corresponds to a block of data of an image that corresponds to an area of the image that is to be rendered on a display unit, and renders the decompressed part of the compressed code before decompressing the remaining part of the compressed code, the image processing method

comprising:

(a) giving an instruction to change the area to be rendered from a first area to a second area of the image; and

(b) decompressing part of the compressed code corresponding to a block of the data of the image that corresponds to the second area of the image and rendering the second area of the image when the instruction is given by giving the instruction to change the area to be rendered.

33.  (Original)  The image processing method as claimed in claim 32, further comprising predicting an area of the image to which the area to be rendered is changed from the first area based on the instruction given by giving the instruction to change the area to be rendered, and decompressing, in advance, part of the compressed code corresponding to a block of the data of the image that corresponds to the predicted area,

wherein decompressing part of the compressed code renders the predicted area of the image when the block corresponding to the predicted area is identical to the block corresponding to the second area.

34.  (Original)  An article of manufacture having one or more computer-readable recording media storing a program which, when executed by a computer, causes the computer to execute an image processing method for decompressing, block by block, a compressed code formed of a plurality of blocks into which image data is divided, the compressed code being encoded block by block, the image processing method comprising:

decompressing a code and rendering the code on a display unit, the code corresponding to at least one of the blocks which one is renderable in a rendering region of the display unit.

35.     (Original) An article of manufacture having one or more computer-readable recording media storing a program which, when executed by a computer, causes the computer to execute an image processing method for decompressing, block by block, a compressed code formed of a plurality of blocks into which image data is divided, the compressed code being encoded block by block, the image processing method comprising:

(a) decompressing a first code and rendering the first code on a display unit, the first code corresponding to at least one of the blocks which one is renderable in a rendering region of the display unit; and

(b) decompressing a second code corresponding to at least one of the blocks that is outside the rendering region after decompressing the first code and rendering the first code.

36.     (Original) An article of manufacture having one or more computer-readable recording media storing a program which, when executed by a computer, causes the computer to execute an image processing method that, in decompressing a compressed code, decompresses part of the compressed code that corresponds to a block of data of an image that corresponds to an area of the image that is to be rendered on a display unit, and renders the decompressed part of the compressed code before

decompressing the remaining part of the compressed code, the image processing method comprising:

(a) giving an instruction to change the area to be rendered from a first area to a second area of the image; and

(b) decompressing part of the compressed code corresponding to a block of the data of the image that corresponds to the second area of the image and rendering the second area of the image when the instruction is given by giving the instruction to change the area to be rendered.

37. The article of manufacture as claimed in claim 36, wherein:

the image processing method further comprises predicting an area of the image to which the area to be rendered is changed from the first area based on the instruction given by giving the instruction to change the ares to be rendered , and decompressing, in advance, part of the compressed code corresponding to a block of the data of the image that corresponds to the predicted area; and

wherein decompressing part of the compressed code corresponding to the block renders the predicted area of the image when the block corresponding to the predicted area is identical to the block corresponding to the second area.

38. (Original) An image display system including a server computer and a client computer connected to the server computer via a network, the image display system comprising:

a block decompression unit to decompress, block by block, a compressed code

formed of a plurality of blocks into which data of an image is divided, the compressed

code being encoded block by block;

a rendering control unit to specify an area to be rendered of the image and cause

the specified area to be rendered on a display unit;

a block extraction unit to receive a rendering area signal indicating the area to be

rendered on the display unit from the rendering control unit and extract a block

corresponding to the area to be rendered from the blocks of the compressed code;

a rendering area block decompression unit to cause the block decompression unit

to decompress part of the compressed code which part corresponds to the extracted block;

a decompressed image storage unit to store part of the image that corresponds to

the decompressed part of the compressed code;

a rendering enabling signal output unit to output to the rendering control unit a

rendering enabling signal indicating completion of decompression of the area to be

rendered after the decompression of the part of the compressed code is completed; and

a specified area rendering unit to receive the rendering enabling signal from the

rendering enabling signal output unit and cause the part of the image stored in the

decompressed image storage unit to be rendered on the display unit.


39.    (Original)  An image display system including a server computer and a

client computer connected to the server computer via a network, the image display

system, in decompressing a compressed code, decompressing part of the compressed

code that corresponds to a block of data of an image that corresponds to an area of the

image that is to be rendered in a rendering region of a display unit, and rendering the

decompressed part of the compressed code before decompressing the remaining part of the compressed code, the image display system comprising:

a rendered image change instruction unit to give an instruction to change the area to be rendered from a first area to a second area of the image; and

a changed image rendering unit to, when the instruction is given by the rendered image change instruction unit, decompress part of the compressed code that corresponds to a block of the data of the image that corresponds to the second area of the image, and renders the second area of the image in the rendering region.

40.     (Original)  The image display system as claimed in claim 43, further comprising a predicted block decompression unit to predict an area of the image to which the area to be rendered is changed from the first area based on the instruction given by the rendered image change instruction unit, and decompress, in advance, part of the compressed code that corresponds to a block of the data of the image that corresponds to the predicted area,

wherein the changed image rendering unit renders the predicted area of the image in the rendering region when the block corresponding to the predicted area is identical to the block corresponding to the second area.

41.     (Original)  An image processing system, comprising:

a display unit to display information;

a block decompression unit to decompress, block by block, a compressed code having a plurality of blocks into which image data is divided, the compressed code being

encoded block by block; and

a rendering control unit to cause a code to be decompressed and rendered on a display unit, the code corresponding to at least one of the blocks that is renderable in a rendering region of the display unit.

42. (Original) An image processing system, comprising:

a display unit to display information;

a block decompression unit to decompress, block by block, a compressed code having a plurality of blocks into which image data is divided, the compressed code being encoded block by block; and

a rendering control unit to causes a first code to be decompressed and rendered on a display unit, the first code corresponding to at least one of the blocks that is renderable in a rendering region of the display unit, and thereafter, cause a second code to be decompressed, the second code corresponding to at least one of the blocks that is outside the rendering region.